PHENIX
HBD INSTALLATION PROCEDURE

procedure name

PHENIX Procedure No. 2.5.5.4-24

Revision: A **Date: 7/27/2006**

Hand Processed Changes

HPC No.	Date	Page Nos.	Initials
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Approvals

Don Lynch
PHENIX S E & I Date

Craig Woody
Cognizant Scientist/Engineer Date
/Activity Manager

Paul Giannotti
PHENIX QA/Safety Date

REVISION CONTROL SHEET

LETTER	DESCRIPTION	DATE	WRITTEN BY	APPROVED BY	CURRENT OVERSIGHT
A	First Issue (Note: First Issued as a Work Permit. Formalized as a procedure for deactivation)	7/27/2006	D. Lynch	D. Lynch, C. Pearson, P. Cirnigliaro (see work permit for signatures)	D. Lynch
Deactivated	Installation completed. To be re-activated when necessary	3/22/2007	D. Lynch	D. Lynch, R. Pisani, P. Giannotti for PHENIX	D. Lynch

HBD Installation Procedure (To Install in CM region of PHENIX IR)

(Note: the following sequence assumes that the west and east detector installations will be performed sequentially allowing for separate delivery of the east and west detector modules. Should the east and west detectors arrive together, the instructions below may be performed concurrently.)

I. West Detector section

a. Prepare gas system for installation of HBD (flow CF4 at a flow rate of 10 l/min for at least 4 hours prior to installation of detector. (Note: Operating flow rate is ~ 1.5 l/min.)
b. Pre-install upper and lower aluminum rails for detectors and cable management.
c. Receive detectors as delivered from Stony Brook at PHENIX
d. Disconnect transport gas bottle from west detector and cap west detector ports.
e. Verify that PHENIX magnets are locked out of operation
f. Open west carriage for access to CM region.
g. Install 3 way purge valves on HBD inlet and outlet lines.
h. Move HBD West Detector to CM region, carefully lift detector over HBD LV/signal rack and onto CM lifting platform
i. Orient detector in upright position and lift onto aluminum rails and secure mounting feet as designed in retracted position such that window of detector faces beampipe. (see figure)
j. Attach supply and return piping, purge supply and return lines using 3 way valves and establish flow to detector.
k. Install cable management trays and tray structural supports for west detector to cable management rails . Attach handles to cable and detector mounting supports.
l. Attach west detector HV and signal cables and secure cables in cable trays.
m. Install UV lamp ????
n. Perform magnet surveys if and as required by CA cognizant engineer(s).
o. Electrical/operational checkout tests per plan.

II. East Detector section

a. Repeat steps c through o for the east detector

See the attached diagrams for further information.

Notes:

1. The HBD prototype utilizes an external UV lamp and power supply for test/calibration of the detector. This lamp will be mounted in a location TBD below the HBD installation with a light tube conduit to direct light into an optical window into the detector located at the north or south end of the east and west detector sections.

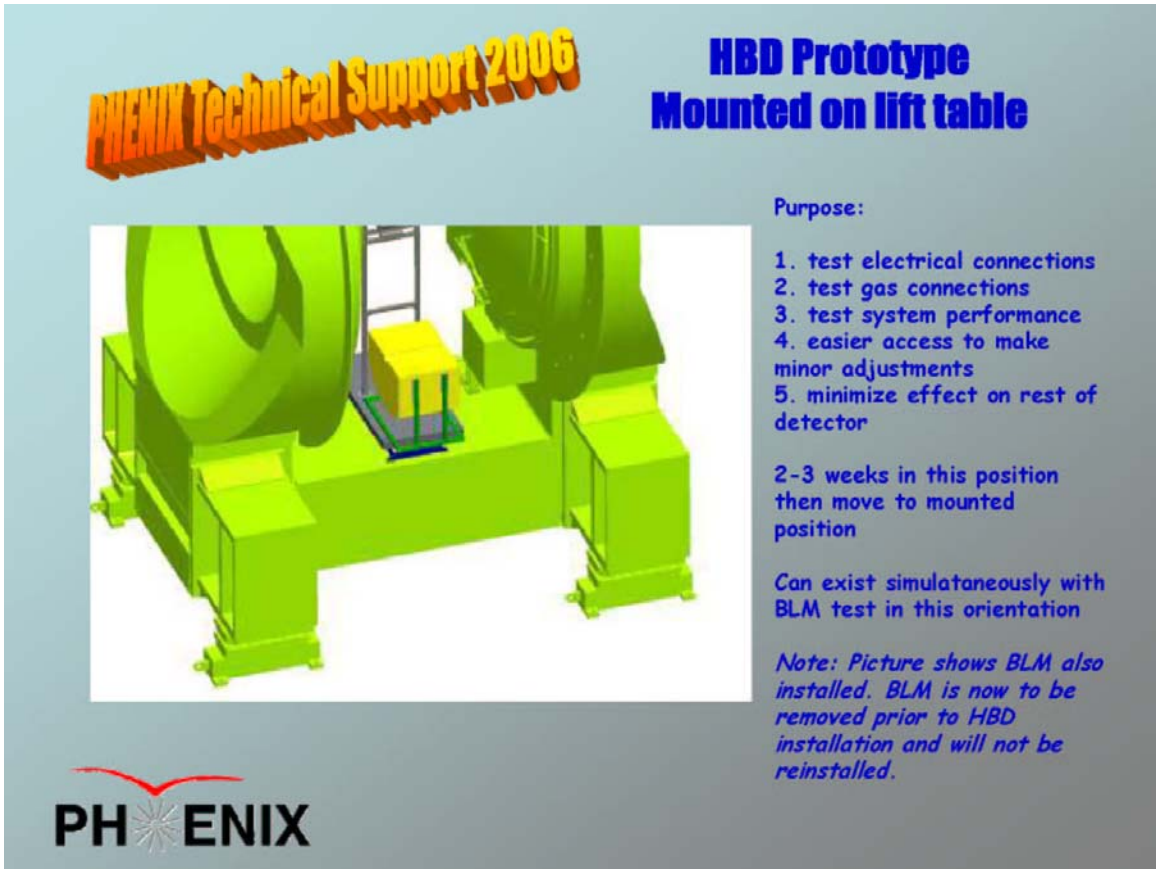

Figure 1. HBD in test Setup position.

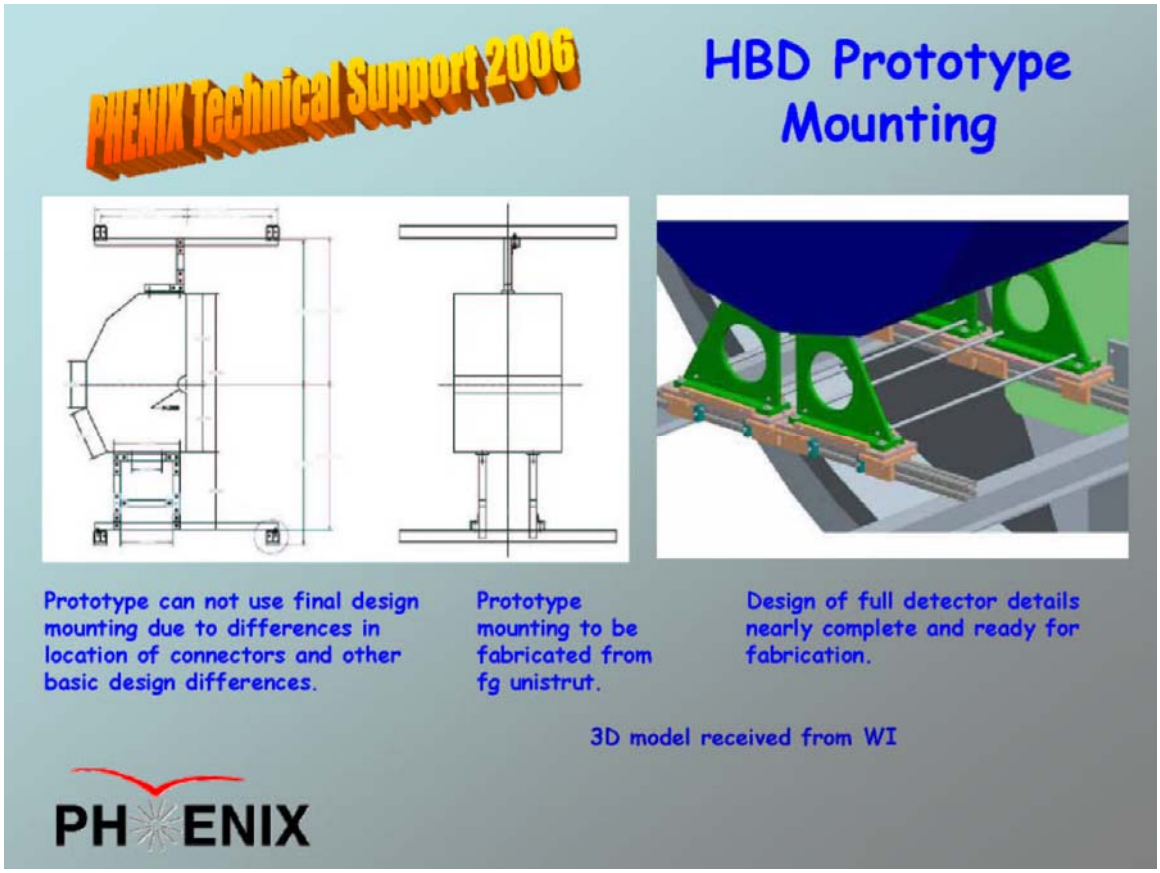

Figure 2: HBD in Run position.